



## NPort 5200-P Series Quick Installation Guide

Second Edition, July 2006

### 1. Overview

Welcome to the programmable NPort 5200-P series, a compact palm-sized data communication device that allows you to control RS-232 (NPort 5210-P) or RS-232/422/485 (NPort 5230-P) serial devices over a TCP/IP-based Ethernet.

### 2. Package Checklist

Before installing the NPort 5210-P/5230-P, verify that the package contains the following items:

NPort 5210-P/5230-P

- 1 NPort 5210-P/5230-P 2-port Serial Device Server

Optional Accessories

- DK-35A DIN-Rail Mounting Kit (35 mm)
- CBL-RJ45M9-150 RJ45 (8-pin) to DB9 (M) cable, 150 cm
- CBL-RJ45F9-150 RJ45 (8-pin) to DB9 (F) cable, 150 cm
- CBL-RJ45M25-150 RJ45 (8-pin) to DB25 (M) cable, 150 cm
- CBL-RJ45F25-150 RJ45 (8-pin) to DB25 (F) cable, 150 cm
- DIN-Rail Power Supply and Adaptor

NPort 5210-P-ST/5230-P-ST

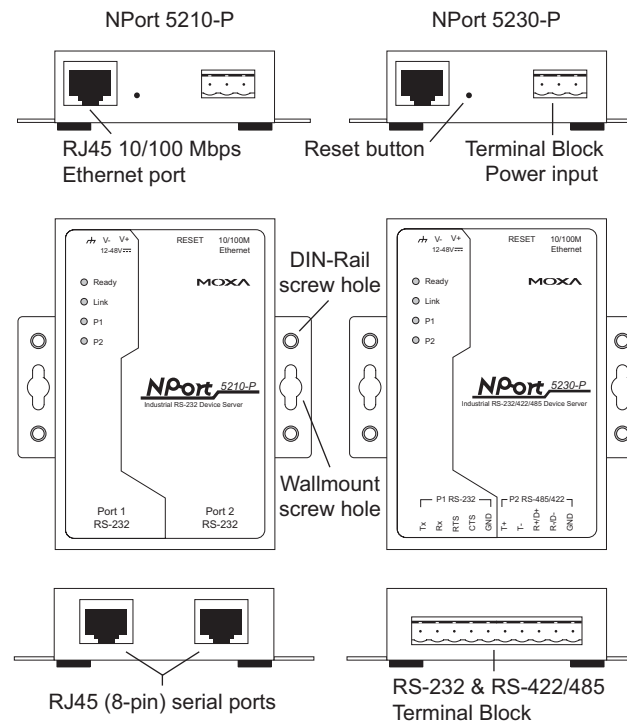
- 1 NPort 5210-P/5230-P 2-port Serial Device Server
- Documentation & Software CD
- NPort 5210-P/5230-P Series Quick Installation Guide
- Switching power adapter
- Power Jack to Terminal Block Cable
- Power Cord
- Product Warranty
- Turbo C Linense Card
- RJ45 to RJ45 Ethernet cross-over cable
- CBL-RJ45M9-150 x 2 (NPort 5210-P-ST Only)

Notify your sales representative if any of the above items is missing or damaged.

P/N:1802052003000

### 3. Hardware Introduction

As shown in the following figures, NPort 5210-P has two 8-pin RJ45 ports, both for the RS-232 interface, NPort 5230-P has one 10-terminal terminal block, with 5 pins used for one RS-232 port, and 5 pins used for one RS-422/485 port.



**Reset Button**—Press the *Reset button* continuously for *5 sec to load factory defaults*. Use a pointed object, such as a straightened paper clip or toothpick, to press the reset button. This will cause the Ready LED to blink on and off. The factory defaults will be loaded once the Ready LED stops blinking (after about 5 seconds). At this point, you should release the reset button.

**LED Indicators**—The top panels of NPort 5210-P/5230-P have four LED indicators, as described in the following table.

| LED Name | LED Color | LED Function   |
|----------|-----------|--|
| Ready    | red       | Steady on: Power is on and NPort 5200-P series is booting up.<br>Blinking: Indicates an IP conflict, or DHCP or BOOTP server did not respond properly.       |
|          | green     | Steady on: Power is on and NPort 5200-P series is functioning normally.<br>Blinking: The device server has been located by Administrator's Location function |
|          | off       | Power is off, or power error condition exists.   |
| Link     | orange    | 10 Mbps Ethernet connection.   |
|          | green     | 100 Mbps Ethernet connection.  |
|          | off       | Ethernet cable is disconnected, or has a short.  |
| P1, P2   | orange    | Serial port is receiving data.   |
|          | green     | Serial port is transmitting data.  |
|          | off       | No data is being transmitted or received through the serial port.  |

### 4. Hardware Installation Procedure

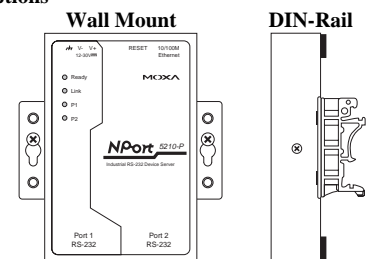
**STEP 1:** After removing NPort 5210-P/5230-P from the box, the first thing you should do is connect the power adaptor. Connect the 12-30 VDC power line with NPort 5210-P/5230-P's terminal block, or connect the DIN-Rail power supply with NPort 5210-P/5230-P's terminal block.

**STEP 2:** Connect NPort 5210-P/5230-P to a network. Use a standard straight-through Ethernet cable to connect to a Hub or Switch. When setting up or testing NPort 5210-P/5230-P, you might find it convenient to connect directly to your computer's Ethernet port. In this case, use a cross-over Ethernet cable.

**STEP 3:** Connect NPort 5210-P/5230-P's serial port to a serial device.

#### STEP 4: Placement Options

In addition to placing NPort 5210-P/5230-P on a desktop or other horizontal surface, you may also make use of the DIN-Rail or Wall Mount options, as illustrated here.



5. Software Installation Information

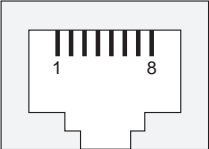
To install **NPort PCG SDK2 Suite**, insert the **NPort PCG SDK2 Document & Software CD** into your computer's CD-ROM drive. Once the **NPort PCG SDK2 Installation CD** window opens, click on the Installation button, and then follow the instructions on the screen.

To view detailed information about **NPort PCG SDK Manager**, click on the **Documents** button, and then select "NPort PCG SKD2 Programmer Guide" to open the pdf version of this user's guide.

6. Pin Assignments and Cable Wiring—NPort 5210-P

RJ45 (8-pin) Connector Pinouts

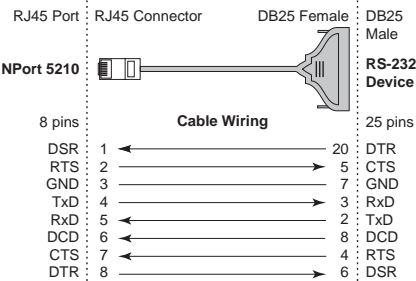
| 8-Pin | Signal |
|-------|--------|
| 1     | DSR    |
| 2     | RTS    |
| 3     | GND    |
| 4     | TxD    |
| 5     | RxD    |
| 6     | DCD    |
| 7     | CTS    |
| 8     | DTR    |



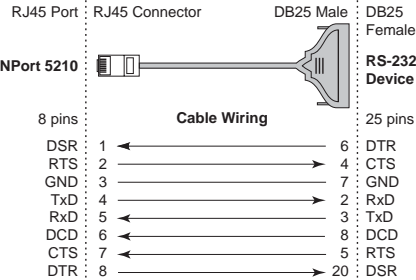
Cable Wiring (RS-232)

Four cables are provided as optional accessories that can be used to connect NPort 5210-P to RS-232 serial devices. For your convenience, we show precise cable wiring diagrams for each of the four cables.

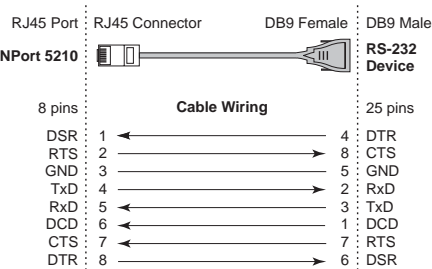
RJ45 (8-pin) to DB25 Female (Cable Name: CBL-RJ45F25-150)



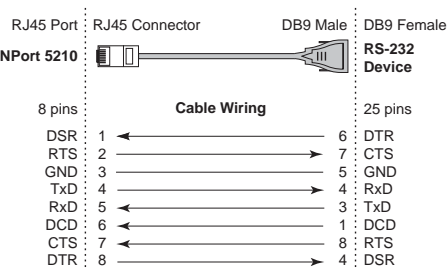
RJ45 (8-pin) to DB25 Male (Cable Name: CBL-RJ45M25-150)



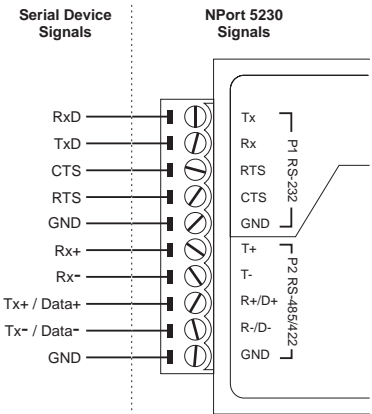
RJ45 (8-pin) to DB9 Female (Cable Name: CBL-RJ45F9-150)



RJ45 (8-pin) to DB9 Male (Cable Name: CBL-RJ45M9-150)



7. Terminal Block Wiring—NPort 5230-P



8. Environmental Specifications

|                       |                                       |   |
|-----------------------|---------------------------------------|---|
| Power requirements    | NPort 5210-P/5230-P:                  | 12 to 48 VDC, 305 mA at 12V (max.)          |
| Operating temp.       | 0 to 55°C (32 to 131°F)               |   |
| Operating humidity    | 5 to 95% RH                           |   |
| Dimensions (W×D×H)    | NPort 5210-P/5230-P (including ears)  | 90 × 100.4 × 22 mm<br>3.54 × 3.95 × 0.87 in |
|                       | NPort 5210-P/5230-P (without ears)    | 67 × 100.4 × 22 mm<br>2.64 × 3.95 × 0.87 in |
| Surge protection      | 15 KV ESD for serial ports            |   |
| Magnetic isolation    | 1.5 KV for Ethernet port              |   |
| Power line protection | 4 KV Burst (EFT), EN61000-4-4         |   |
| Regulatory approvals  | 2 KV Surge, EN61000-4-5               |   |
|                       | FCC Class A, CE Class A, UL, CUL, TÜV |   |

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